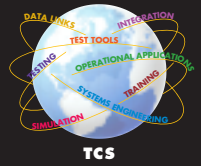




SPAWAR  
Systems Center  
San Diego

## TACTICAL COMMUNICATION SOLUTIONS

# TADIL J Host Simulator



### TOOLS TO SUPPORT TADIL SYSTEMS TESTING

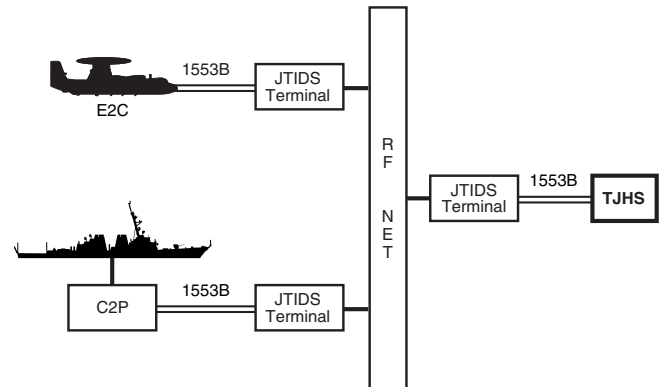
The Tactical Digital Information Link (TADIL) J Host Simulator (TJHS) is one in a family of Data Link Test Tools designed to facilitate Link-16 integration and interoperability testing. It can be configured on either a desktop or laptop computer.

By emulating a Link-16 host system, the TJHS provides an extensive situational display, a low-cost alternative to having a TADIL J-capable host system in the test facility. The TJHS can provide Joint Tactical Information Distribution System (JTIDS) terminal control, or it may be used as a monitor of the 1553B interface between a terminal and another host. The TJHS has data extraction, reduction, and replay capabilities for post-test analysis.

The TJHS can play a key role in the Data Link Gateway system (see Data Link Gateway data sheet) to support TADIL systems testing, training, and problem resolution.

### FEATURES/CAPABILITIES

- Transmits and receives TADIL J data
- Terminal control, including load and update of terminal initialization parameters
- Provides terminal with position data for Precise Participant Location and Identification (PPLI) transmission
- Locally held tracks can be added and reported
- Operator can build and send any J message, modifying all desired fields
- Operator can send and respond to addressed messages
- External time synchronization for data extraction
- Data extraction (DX) of I/O messages exchanged over 1553B bus
- Data replay of previously recorded DX file for post-mission analysis
- TADIL J message breakout (MIL-STD 6016A)
- Scripting capability (external track input)
- Air control capability
- Command and Control (C2) conflict and Force Order processing
- Basis for EA-6B ICAP III MIDS processor
- Selectable geographic tactical situational awareness display of any/all Link-16 data
  - Real-time map can be configured to show latitude/longitude grids, coastal outlines, and major cities
  - Displays PPLI symbols, tracks, points
  - Can hook tracks for detailed readout
  - Flexible map controls



Typical TADIL J Host Simulator Test Layout

- Range and bearing function available
- Scrolling list of TADIL J messages can be displayed
- Scrolling list of Data Extraction and Reduction Guide (DERG) messages can be displayed
- Can serve as monitor
  - Provides passive interface to Navy Air, Navy Ship, and Modular Control Equipment (MCE) JTIDS and MIDS terminals via the 1553B bus
  - Processes all traffic Terminal Input Messages (TIMs) and Terminal Output Messages (TOMs), displays relevant tactical information

### TERMINALS SUPPORTED

- Class 2H Navy Air and Ship
- MCE
- MIDS (Platform A)

### APPLICATIONS

- Host development testing
- Interoperability testing
- System validation
- Deployment testing
- Proof-of-concept testing
- Crew training
- Mission monitoring
- Mission evaluation
- Crew debrief
- Impact analysis
- Demonstrations
- Installation checkouts



TJHS Laptop Configuration



TACTICAL COMMUNICATION SOLUTIONS

# TADIL J Host Simulator

## SYSTEM COMPONENTS/SUPPORT

Data Link Test Tool (DLTT) systems are configured at the Space and Naval Warfare Systems Center, San Diego (SSC San Diego). Modular design and open architecture allow for flexibility and rapid integration of new interfaces and capabilities to suit user needs. The TJHS desktop application package includes:

- High-speed single board computer, monitor, keyboard (laptop configuration available)
- Removable hard drive, floppy drive, and CD-RW drive
- Timing board (where applicable), I/O boards, and host terminal interface board
- Operating system software
- TJHS program software

The Tactical Communication Solutions group at SSC San Diego provides full and flexible support services for DLTT users, including system configuration, installation, training, ongoing technical support, and upgrade program options.

## FURTHER INFORMATION

Data Link Test Tools are a family of applications developed and maintained by the Tactical Communication Solutions (TCS) group at SSC San Diego, Code 245, to facilitate TADIL integration and interoperability testing.

Further information on the TADIL J Host Simulator system, other Data Link Test Tools, and other TCS services is available at the following:

TCS Web Site: <http://gateway.spawar.navy.mil>

Send email to: [gwinfo@spawar.navy.mil](mailto:gwinfo@spawar.navy.mil)

Telephone (toll free in the U.S.): 1-888-GWLinks (495-4657) or (619) 553-6622.

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